What is claimed is:

1. A semiconductor integrated circuit device comprising:

a layer insulating film formed on a semiconductor substrate;

a fuse portion which is configured by an uppermost metal wiring layer that is formed on said layer insulating film;

an inorganic insulating protective film which is formed on said metal wiring layer and said layer insulating film; and

an organic insulating protective film which is formed on said inorganic insulating protective film,

an opening being formed in said organic insulating protective film so that said inorganic insulating protective on said fuse portion is exposed.

2. A semiconductor integrated circuit device according to claim 1, wherein said device further comprises an external lead electrode on said layer insulating film, said external lead electrode being configured by said metal wiring layer, and

an opening is disposed in said inorganic insulating protective film and said organic insulating protective film which are above said external lead electrode, so as to expose a surface of said external lead electrode.

3. A semiconductor integrated circuit device according to claim 1, wherein said metal wiring layer is configured by a laminated film having at least a main conducting metal layer and a barrier metal layer which serves as a lower layer, and

in at least a fusion-cut area of said fuse portion, said barrier metal layer of said metal wiring layer configured by said laminated film is removed away.

4. A semiconductor integrated circuit device according to claim 1, wherein said metal wiring layer is configured by a laminated film having at least a main conducting metal layer and a barrier metal layer which serves as a lower layer, and

in at least a fusion-cut area of said fuse portion, said barrier metal layer has a thickness of 150 nm or less.

5. A semiconductor integrated circuit device according to claim 1, wherein said metal wiring layer serving as said fuse portion is embedded into a trench which is formed in said layer insulating film.

6. A semiconductor integrated circuit device according to claim 1, wherein at least one end of said fuse portion configured by said metal wiring layer is connected to a lower wiring layer through a plug electrode in a contact hole which is disposed in said layer insulating film.

7. A semiconductor integrated circuit device according to claim 6, wherein a guard band which is configured by a conductive layer is disposed so as to surround said fuse portion and said contact hole.

8. A semiconductor integrated circuit device according to any one of claims 1 to 7, wherein said inorganic insulating protective film on said fuse portion has a thickness which is

not smaller than 0.1 μm and not larger than 0.8 μm.

9. A semiconductor integrated circuit device according to any one of claims 1 to 7, wherein a wiring width of said fusion-cut area of said fuse portion is not smaller than 0.1 μm and not larger than 1.0 μm.

10. A semiconductor integrated circuit device according to any one of claims 1 to 7, wherein, with respect to one fuse portion which is electrically continuous, two or more parts are fused off by irradiation with a laser beam.

11. A semiconductor integrated circuit device according to any one of claims 1 to 7, wherein a plurality of fuse portions are disposed in one opening of said organic insulating protective film, and fusion-cut areas of said plurality of fuse portions are arranged on a straight line.

12. A method of producing a semiconductor integrated circuit device comprising:

a first step of forming a fuse portion configured by an uppermost metal wiring layer, on a layer insulating film formed on a semiconductor substrate;

a second step of forming an inorganic insulating protective film on said metal wiring layer and said layer insulating film;

a third step of forming an organic insulating protective film on said semiconductor substrate on which said inorganic insulating protective film is formed; and

a fourth step of forming an opening in said organic insulating protective film so that said inorganic insulating protective on said fuse portion is exposed.

13. A method of producing a semiconductor integrated circuit device according to claim 12, wherein said method further comprises the steps of:

in the first step, forming an external lead electrode on said layer insulating film, said external lead electrode being configured by said metal wiring layer;

after said second step and before said third step, forming an opening in said inorganic insulating protective film above said external lead electrode so as to expose a surface of said external lead electrode; and

in said fourth step, forming an opening in said organic insulating protective film above said external lead electrode so as to expose the surface of said external lead electrode.

14. A method of producing a semiconductor integrated circuit device according to claim 12, wherein, in said first step, said metal wiring layer is configured by a laminated film having at least a barrier metal layer and a main conducting metal layer, and

said method further comprises the steps of: forming said barrier metal layer on said layer insulating film, said barrier metal layer in at least a fusion-cut area of said fuse portion being removed away; forming said main conducting metal layer on

said barrier metal layer and said layer insulating film; and etching said main conducting metal layer and said barrier metal layer into a desired pattern, thereby forming said fuse portion.

15. A method of producing a semiconductor integrated circuit device according to claim 12, wherein, in said first step, a trench is formed in said layer insulating film formed on said semiconductor substrate, and said metal wiring layer is then embedded into said trench, thereby forming said fuse portion.

16. A method of producing a semiconductor integrated circuit device according to claim 12, wherein said method further comprises, before the first step, the steps of: forming a wiring trench in a lower layer insulating film which is formed on said semiconductor substrate; forming a lower wiring layer which is embedded into said wiring trench; forming said layer insulating film on said semiconductor substrate on which said lower wiring layer is formed; forming a contact hole in said layer insulating film on said lower wiring layer; and forming a plug electrode in said contact hole, and

in said first step, said fuse portion is formed so that at least one end of said fuse portion is connected to said lower wiring layer through said plug electrode in said contact hole which is disposed in said layer insulating film.

17. A method of producing a semiconductor integrated circuit device according to claim 12, wherein said method further comprises the step of, after said fourth step, etching said

inorganic insulating protective film on said fuse portion so as to have a predetermined thickness, said inorganic insulating protective film being exposed in said opening of said organic insulating protective film.

18. A method of producing a semiconductor integrated circuit device according to claim 12, wherein said method further comprises the step of, after said second step and before said third step, etching said inorganic insulating protective film on said fuse portion so as to have a predetermined thickness.

19. A method of producing a semiconductor integrated circuit device according to any one of claims 12 to 18, wherein said method further comprises the step of, after said fourth step, with respect to one fuse portion which is electrically continuous, fusing off two or more parts by irradiation with a laser beam.

20. A method of producing a semiconductor integrated circuit device according to any one of claims 12 to 18, wherein a plurality of fuse portions are disposed in one opening of said organic insulating protective film, and fusion-cut areas of said plurality of fuse portions are arranged on a straight line.